Patent Claims

1. Method for transmission of variable-length packets over connections (Label Switched Paths, LSP) which are established between communication devices of a communication system, where these devices are intermeshed to form a network,
c h a r a c t e r i z e d i n t h a t,
a marker is provided within the header of a packet which identifies a subset of total number of packets transmitted per LSP which are used for the Operation and Maintenance (OAM) of the network.

2. Method according to Claim 1,
c h a r a c t e r i z e d i n t h a t,
the packets are transmitted in accordance with a Multi Protocol Label Switching (MPLS) transmission procedure, with these packets being defined as MPLS packets and that the MPLS packets with the marker are defined as MPLS-OAM packets.

3. Method according to Claims 1, 2,
c h a r a c t e r i z e d i n t h a t,
one of the EXP (experimental) bits in the header of the MPLS packet is used as the marker.

4. Method according to Claims 1, 2,
c h a r a c t e r i z e d i n t h a t,
one of the reserved MPLS label values No. 4 to No. 15 is used in the header of the MPLS packet as a marker.

5. Method according to one of the Claims 1 to 4,
c h a r a c t e r i z e d i n t h a t,
an end-to-end MPLS OAM packet flow is formed from the MPLS OAM packets which is transmitted between source and sink of the Label

Switched Path (LSP), in which case the entire Label switched Path (LSP) is monitored.

6. Method according to one of the Claims 1 to 5,
characterized in that,
the Label switched Path (LSP) is formed from a plurality of segments,
an MPLS OAM segment flow is formed from the MPLS OAM packets which is transmitted within the segment of the Label switched Path (LSP) concerned between source and sink of the segment, whereby this segment of the Label Switched Path (LSP) is monitored.

7. Method according to Claim 6,
characterized in that,
different variants of an MPLS-OAM segment flow exist which are defined as Type A, Type B etc. and which can be set up to be functionally independent of each other for the same Label Switched Path (LSP).

8. Method according to one of the Claims 5 to 7,
characterized in that,
only one MPLS OAM segment flow of the same, but a number of MPLS OAM segment flows of different variants in each case can be simultaneously created for any given segment of a Label Switched Path (LSP).

9. Method according to one of the previous claims,
characterized in that,
within an MPLS OAM packet a further marker is provided which allows a distinction to be made as to whether the associated MPLS OAM packet is part of an end-to-end MPLS OAM packet flow or part of an MPLS OAM segment flow.

10. Method according to one of the previous claims,
c h a r a c t e r i z e d i n t h a t,
within an MPLS OAM packet a third marker is provided which, in the case of an MPLS OAM segment flow, allows a distinction to be made as to which variant of an MPLS OAM segment the relevant MPLS OAM packet can be assigned.

11. Method according to one of the previous claims,
c h a r a c t e r i z e d i n t h a t,
within an MPLS OAM packet a fourth marker is provided which identifies the functional significance of the MPLS-OAM packet in greater detail.

12. Method according to one of the previous claims,
c h a r a c t e r i z e d i n t h a t,
within an MPLS OAM packet further information is provided which is used within the framework of the functions of the MPLS-OAM packet to support operation and maintenance of the network.